

DEVELOPMENT OF BLASTING TECHNOLOGY THAT REDUCES THE HARMFUL IMPACT ON THE ENVIRONMENT

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In the modern world, the theme of ecology occupies an important place in our life. Each branch of production shifts to more ecological methods of farming. Let us consider the extraction of minerals. The preparatory stage of this case includes directly blasting. How do we make blasting work environmentally friendly?

The work in the direction of optimizing blasting operations was carried out by the doctor of technical works Vitaly Komashchenko. In his scientific work, physical modeling of parameters of blasting operations and forecasting the ways of deposit development were made. According to the results of the physical simulation of blasting operations, the ecologically clean blasting technology was developed, taking into account the modern methods of breaking and optimal blasting parameters, combined with an assessment of the role of strength properties and structural features of the array, with the goal of obtaining a qualitative crushing of the rock massif. The regular dependence of the quality of crushing on the grid of drilling and blasting wells was also confirmed. Based on the results, the necessary ideas were put forward in the field of reducing the technogenic impact of the mining and processing of iron ores. These include:

1. Development of a general concept of environmental protection from technological pollution;
2. Improvement and introduction of rational parameters of drilling and blasting operations.

In conclusion, I would like to note that the introduction of advanced modern technologies for extraction and processing of iron ores, improvement and introduction of rational parameters of drilling and blasting operations provides economic benefits by reducing the technogenic burden of mining enterprises on the environment and improving the geo-ecological state of mining regions.

SOURCES:

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2. Lukyanov. Blasting operations. Manual for students of TPU. URL: <http://portal.tpu.ru/files/personal/lukyanov-posobie1.pdf>